

REMARKS/ARGUMENTSStatus of Claims

Claims 1-6, 8-14, 16, 17, 19, and 21-27 are being resubmitted. Claims 1, 8, 16, 19, 21, and 23-27 have been amended. Claims 7, 15, 18, 20, and 28-35 have been canceled without prejudice or disclaimer of the subject matter.

Claims 1-6, 16, 17, 19, 21, 22, and 24-27 were objected to because of informalities. The Office Action further rejected Claims 16 and 17 under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as being obvious over Rocker et al. (U.S. Patent 6,527,894).

Claims 1, 8, 16, 19, 21, 24, and 27 have been amended to include a curing step and Claims 21 and 23-27 have been amended to include --wing-- before panel to overcome objections based on informalities.

Allowable Subject Matter

The Office Action indicates conditional allowability of Claims 1-6, 19, 21, 22 and 24-27 if rewritten or amended to overcome objections set forth in the Office Action. The Office Action further rejoins Claim 23 and indicates conditional allowability of Claim 23 if Claim 21 would be rewritten or amended to overcome the objections set forth in the Office Action. The Office Action still further indicates that Claims 8-14 could be rejoined and would be allowable if Claim 8 was amended as suggested by the examiner.

Claims 1-6, 19, 21, 22 and 24-27 have been amended to overcome the objections set forth in the Office Action by amending the Claims 1, 8, 19, 21, 24, and 27 to include a curing step. Claims 21 and 23-27 have been amended to

overcome the objections set forth in the Office Action by amending the claims to include --wing-- before panel. Claim 8 has been amended as suggested by the examiner. Claims 1-6, 8-14, 19, and 21-27 are believed to be in condition for allowance.

Rocker et al. (U.S. Patent 6,527,894)

Rocker et al. teach a method for producing a fiber-reinforced plastic component by joining and curing a prepreg semi-finished material, a textile semi-finished material and a resin film using a vacuum device that includes a flexible vacuum hood. A removable profile tool is used to support and shape the textile semi-finished material (Col.2, lines 3-5 and 20-23, Figures 1 and 3a-d). Rocker et al. do not disclose or suggest to position the removable profile tool in areas where bridging of the flexible vacuum hood may occur and, therefore, the removable profile may not prevent undulations in the fiber-reinforced plastic component that may occur in areas of lower pressure than the ambient pressure produced by an auto-clave.

The present invention, as in Claim 16 (as amended) and Claim 17, discloses a step of permanently coupling a sheet to a malleable, uncured portion of a composite object in an area where bridging may occur, for example, due to the design of the composite object. The sheet may have a thickness of, for example, 0.005 to 0.010 inches (paragraph [021]). The pressure differential between the auto-clave pressure and the pressure within the gas-impermeable container causes the gas-impermeable container to exert force on the sheet towards the curing portion of the composite object. The sheet resists bending by the low-pressure volume contained within the bridging, such that the sheet applies pressure on the curing portion. Thus, the sheet prevents undulations - such as the undulation 30 shown in Figure 2 - from occurring in the curing portion of the composite object (paragraph [024]). Even if the gas-impermeable

container does not contact the sheet during the curing process, such that the gas-impermeable container does not apply a force on the sheet towards the curing portion of the composite object, the thickness of the sheet is sufficient to resist bending by the low-pressure volume contained within the bridging, such that the sheet applies pressure on the malleable portion of the object as the malleable portion cures (paragraph [025]. Contrary to Rocker et al., where a removable profile tool supports a textile semi-finished material in a dimensionally stable way (Col 2, lines 20-23), the present invention as in Claim 16 (as amended) and Claim 17 utilizes a sheet that is permanently coupled with a malleable portion of an object to prevent undulations from forming during the curing of the malleable portion in areas where bridging between the curing object and the gas-impermeable container occurs.

Therefore, Rocker et al. do not anticipate or make obvious the present invention as in Claim 16 (as amended) and Claim 17, either alone or with the other references of record.

CONCLUSION

Reconsideration and withdrawal of the Office Action with respect to Claims 1-6, 8-14, 16, 17, 19, and 21-27 is requested. It is believed that Claims 1-6, 8-14, 16, 17, 19, and 21-27 are now in condition for allowance. Applicants respectfully request that a timely Notice of Allowance be issued in this case.

In the event the examiner wishes to discuss any aspect of this response, please contact the attorney at the telephone number identified below.

Respectfully submitted,

By: /David Bowls/
Gudrun Passlack, Reg. No. 47,847
David Bowls, Reg. No. 39,915
Michael A. Shimokaji, Reg. No. 32,303

SHIMOKAJI & ASSOCIATES, P.C.
8911 Research Drive
Irvine, CA 92618
(949) 788-9961

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on September 23, 2005

/David Bowls/
David Bowls, Reg. No. 39,915
Michael A. Shimokaji, Reg. No. 32,303